

I Claim:

1. A method of molding including:

- 5 a) providing a sheet of thermoplastic material which absorbs electromagnetic radiation at one or more wavelengths in the infrared range;
- b) providing an upper mold and a lower mold, at least one of which is formed substantially of silicon or silicon alloy and which is at least partially transparent or translucent to electromagnetic radiation at said one or more wavelengths;
- 10 c) heating the sheet by radiating the sheet with electromagnetic radiation at said one or more wavelengths through the mold or molds at least partially transparent or translucent to electromagnetic radiation at said one or more wavelengths.

15 2. The method of claim 1 wherein both said molds are both formed substantially of silicon or silicon alloy and are at least partially transparent or translucent to electromagnetic radiation at said one or more wavelengths

3. The method of claim 1 wherein the sheet intrinsically absorbs electromagnetic
20 radiation at said one or more wavelengths.

4. The method of claim 1 wherein the sheet includes dopants which absorb electromagnetic radiation at said one or more wavelengths.

25 5. The method of claim 1 wherein the sheet includes carbon as a dopant to absorb electromagnetic radiation at said one or more wavelengths.

6. The method of claim 1 wherein said one or more wavelengths are in the range of 1000 nm to 5000 nm.

30 7. The method of claim 1 wherein at step c) the sheet is additionally heated by conduction.

8. The method of claim 1 wherein steps c) and d) occur sequentially without overlap, sequentially with overlap or simultaneously.

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